

REMARKS

Applicants have considered the outstanding official action. It is respectfully submitted that the application is directed to patentable subject matter as set forth below.

The amendments to the claims are to correct informalities only.

The outstanding rejections are as follows:

- (1) Claims 1-3 under 35 U.S.C. §103(a) over U.S. Patent No. 5,619,038 (Parigi), in view of U.S. Patent No. 3,196,072 (Wirtz);
- (2) Claims 6-9 under 35 U.S.C. 103(a) over Parigi, in view of U.S. Patent No. 6,461,743 (Tanzer);
- (3) Claims 1 and 3-5 provisionally under the judicially created doctrine of obviousness-type double patenting over claims 1, 7, 5 and 6, respectively, of copending Application No. 10/294,296;
- (4) Claims 6 and 7 provisionally under the judicially created doctrine of obviousness-type double patenting over claim 7 of copending Application No. 10/294,296; and
- (5) Claims 1-3 provisionally under the judicially created doctrine of obviousness-type double

patenting over claims 1 and 2 of copending  
Application No. 10/338,069.

As to numbered rejections (3), (4) and (5) above, applicants are submitting herewith a terminal disclaimer with regard to U.S. Serial Nos. 10/294,296 and 10/338,069. Accordingly, the three provisional double patenting rejections are overcome. It is noted that claims 4 and 5 are only rejected based on obviousness-type double patenting. In view of the filing of the terminal disclaimer, it is submitted that claims 4 and 5 are now allowable.

As to the rejections under 35 U.S.C. §103 based on the combinations of Parigi and Wirtz, and Parigi, Wirtz and Tanzer, applicants submit that a critical element of the claimed invention is not taught or suggested by the applied art. More specifically, none of Parigi, Wirtz or Tanzer teach or suggest methods involving a veneer-wood sheet. Each of Parigi and Wirtz is directed solely to paper-making and, thus, is not directed to an engineered wood product of any type. Tanzer involves surface treatment of particleboard such as oriented strand board (OSB). Each reference teaches treatment of a starting material which is entirely different from that claimed by applicants. Additionally, each applied reference requires additional steps which are not relevant to applicants' claimed method

involving an engineered wood product, i.e., veneer-wood sheets. Thus, each disclosure of Parigi and Wirtz is technologically distinct from the "field-of-endeavor" of the claimed subject matter. The differences in technologies, which establish "non-analogous" characteristics, are set forth further below. While Tanzer is concerned with a wood product, the wood product taught is a differently finished wood-product and utilizes a different method for fabricating the finished product such that Tanzer does not address the problems solved by applicants.

More specifically as to Parigi, Parigi teaches solely a method concerning paper-making. Parigi describes a method including steps for preparing a different material, and, requires additional preliminary steps (shown in FIG. 1 of Parigi) including obtaining a cellulose-polymer sample and dewatering the sample before calculating whether either additional polymer or additional cellulose is required prior to starting any actual paper making. Parigi fails to teach or suggest, inter alia, quantitative analysis of resin application per unit surface area in wood-veneer sheets according to the steps claimed by applicants either during in-line movement of pre-fabricated veneer-wood sheets for assembly or as applied on-line prior to assembly. Paper-making technology is "non-analogous" to engineered wood products and does not address the problems of uniform

application of resin and assembly of veneer-wood sheet as in applicants' claimed invention. For example, Parigi requires a "lignin-free" material which preemptively excludes veneer-wood sheets. Additionally, Parigi requires in all embodiments described dewatering or moisture-removal steps as to the material being treated. Applicants' claimed methods involving veneer-wood quantitative measurement of absorbed NIR radiation to determine resin-loading per unit surface area during linear movement of pre-fabricated veneer-wood sheets in-line, for assembly of a plurality of uniformly resin-coated veneer-wood sheets, utilizing heat and pressure which solidifies a precisely measured designated resin to form integral rigid multi-layered wood products. The claimed method utilizes a novel combination of steps not taught or suggested by the applied art, including resin-coating during continuing in-line movement of rigid sheets, and quantitative evaluations of resin coupled with "feedback" steps for maintaining uniformity of application per unit surface area of adhesive to an extended area planar surface of a rigid sheet which, is carried out free of any requirement to remove moisture from the wood-veneer sheets. This is directly contrary to the removal of moisture which is an essential step in the paper-making taught by Parigi, see FIGS. 1-5 and the claims of Parigi.

Wirtz is directed to a conventional Fourdrinier paper-making machine in which the first step is refining raw-stock pulp feed fibrous materials (FIG. 1, #1). In particular, Wirtz requires that the surface properties of the fibrous material be examined (column 1, lines 33-35) and mechanical treatment applied to improve "felting" properties (column 2, lines 62-64). The refined stock, after possible screening (column 3, line 11), is chemically treated and introduced into an aqueous float for delivery onto a horizontal endless belt for removal of water (column 3, lines 19-25) and then, into dryers which include heated rolls (column 3, lines 26-27) for further removal of any residual moisture. The number of fibers per unit length is then counted, followed by a comparison for evaluating desired density (column 3, lines 39-44). The fibers are then pressed into matted sheets of paper (column 3, line 73 to column 4, line 5).

Wirtz does not disclose quantitatively measuring, in-line, resin application per unit surface area, of planar-surface rigid veneer-wood sheets to be assembled by heat and pressure treatment to provide a plurality of the resin-coated sheets into plywood products.

The combination of Parigi and Wirtz, therefore, does not teach applicants' claimed method or suggest modification to obtain the methods in view of the different

problems solved by the applied art and the applicants' claimed invention (which combines radiation-absorption measurements and feedback steps, as referred to above to produce a uniform resin coating). Neither reference is reasonably pertinent to applicants' technology nor the problem(s) solved by applicants, in particular, in view of the paper-making requirement that the material must be free of lignin, and that dewatering of that material is required.

Further, applicants submit that the Examiner's assertion that Wirtz and Parigi processes analyze the content of "wood" material is technologically erroneous. Both Wirtz and Parigi only disclose preparing a moisture-free and lignin-free material. Veneer-wood sheets contain lignin and contain moisture, and, further, need not be dewatered.

Tanzer does not make up for the shortcomings of Parigi and Wirtz with respect to their application against claims 6-9. Tanzer does not disclose applying resin to a rigid surface area of a veneer-wood sheet, nor quantitatively evaluating resin application per unit surface area, nor on-line movement of such resin application, on veneer-wood sheets before assembly of a plurality of rigid surface veneer-wood sheets. Tanzer teaches alleviating "telegraphing" which is defined as protrusions through an outer covering or a painted outer surface. A specific

example of a panel with which the technology disclosed is used is oriented-strand board (OSB) which presents rough surfaces which are unsuitable when a smooth outer surface is required. Tanzer teaches essentially joining a non-rigid layer of fine particulate to at least one outer surface of OSB in which the fine particulate size preferably averages not more than one mm (less than four thousandth of an inch) and, with no particulate more than two mm (eight thousandth of an inch). Tanzer teaches that this particulate can be made from paper, vegetable fibers, stalks, straw, and bagasse (ground sugar cane residue). Tanzer is clearly concerned with processing an entirely different product, having differentiated layers, with an outer surface consisting of fine particulate. No disclosure whatsoever is provided relating to measuring resin application to a rigid surface area of wood-veneer sheets.

Accordingly, none of Parigi, Wirtz or Tanzer provides teachings relevant to solving the problems solved by applicants, and providing quantitative measuring of NIR absorption of applied resin to determine uniformity of application to engineered veneer-wood sheets prior to assembly to form a finished product. Upon examination of applicants' claims, recited portions of a claim cannot be separated in order to apply selected portion(s) of analogous or non-analogous prior art to that separated claim portion.

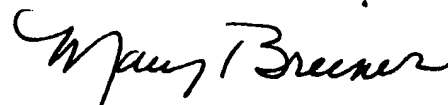
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Examination requires consideration of the claimed subject matter as a whole. Further, the Examiner cannot rely on applicants' teachings or read prior art patents out of context in an attempt to make "the invention as a whole" appear obvious. The distinctions set forth above make it clear that the applied art must be read "out of context" in order to cover an engineered wood product and be considered to teach or suggest applicants' claimed method steps. The combined art as applied in the §103 rejections does not render the claimed invention obvious within the meaning of 35 U.S.C. §103. Withdrawal of the rejections of the claims under 35 U.S.C. §103 is respectfully requested.

Reconsideration and formal allowance of the claims are respectfully urged.

Respectfully submitted,  
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By



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Attachment - Terminal Disclaimer